



AMENDMENTS  
In the Claims

Current Status of Claims

1      1.(**currently amended**)      A method for analyzing a query and generating related results  
2      comprising:  
3              determining a keyword associated with the query;              SEP 04 2003  
4              generating at least one term related to at least one keyword;              Technology Center 2100  
5              supplying the keywords and terms to a data mining routine; and  
6              generating obtaining from the data mining routine at least one related result to the query:  
7              and  
8              generating at least one question related to the query derived from the related results, where  
9              the question is adapted to enhance information retrieval associated with the query.  
  
1      2.(**currently amended**)      The method of claim 1 , wherein the ~~determining generating~~ step  
2      comprises polling a database for terms related to the at least one keyword.  
  
1      3.      The method of claim 1, wherein the query comprises a plurality of keywords and wherein  
2      the generating step generates a plurality of generated terms related to at least one of the plurality of  
3      keywords.  
  
1      4.      The method of claim 3, further comprising:  
2              selecting at least one generated term; and  
3              supplying the keywords and the selected terms to the data mining routine;  
4              selecting the at least one question;  
5              supplying the selected question to the data mining routine;  
6              obtaining from the data mining routine at least one related result to the query; and  
7              generating at least one sub-question related to the question derived from the related results,  
8              where the sub-question is adapted to enhance information retrieval associated with the query.  
  
1      5.(**currently amended**)      A method comprising the steps of:  
2              constructing a query comprising keywords and constraints;  
3              generating related keywords and/or or related constraints;

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4           suppling the keywords, the constraints, the related keywords and/or or the related  
5           constraints to a data mining routine; and

6           obtaining from the data mining routine "as is" results and/or or information, related results  
7           and/or or information and a question related to the query adapted to enhance query results and/or  
8           or information.

1       **6.(currently amended)**       The method of claim 5, further comprising the steps of:  
2           selecting the question; and  
3           obtaining "as is" results and/or or information, related results and/or or information and a  
4           sub-question related to the question adapted to enhance query results and/or or information.

1       **7.(currently amended)**       The method of claim 5, further comprising the steps of:  
2           selecting the question;  
3           obtaining "as is" results and/or or information, related results and/or or information and a  
4           sub-question related to the question adapted to enhance query results and/or or information;  
5           selecting the sub-question;  
6           obtaining "as is" results and/or or information, related results and/or or information and a  
7           sub-question related to the question adapted to enhance query results and/or or information to form  
8           a query-by-question path.

1       8.       The method of claim 7, further comprising the step of:  
2           repeating the selecting sub-question step and obtaining step.

1       9.       The method of claim 5, wherein the constraints are selected from the group consisting of  
2           containment constraints, grouping constraints, connector constraints, data constraints and mixtures  
3           and combinations thereof.

1       **10.(currently amended)**       A method comprising:  
2           constructing a query;  
3           extracting keywords and constraints from the query;  
4           generating related keywords and/or or related constraints;

5 supplying the keywords, the constraints, the related keywords and/or or the related  
6 constraints to a data mining routine; and

7 obtaining "as is" results and/or or information, related results and/or or information and a  
8 question related to the query adapted to enhance query results and/or or information.

1 11.(currently amended) The method of claim 10, further comprising the steps of:  
2 selecting the question; and  
3 obtaining "as is" results and/or or information, related results and/or or information and a  
4 sub-question related to the question adapted to enhance query results and/or or information.

1 12.(currently amended) The method of claim 10, further comprising the steps of:  
2 selecting the question;  
3 obtaining "as is" results and/or or information, related results and/or or information and a  
4 sub-question related to the question adapted to enhance query results and/or or information;  
5 selecting the sub-question;  
6 obtaining "as is" results and/or or information, related results and/or or information and a  
7 sub-question related to the question adapted to enhance query results and/or or information to form  
8 a query-by-question path.

1 13. The method of claim 12, further comprising the step of:  
2 repeating the selecting sub-question step and obtaining step.

1 14. The method of claim 10, wherein the constraints are selected from the group consisting of  
2 containment constraints, grouping constraints, connector constraints, data constraints and mixtures  
3 and combinations thereof.

1 15.(currently amended) A system comprising:  
2 a remote digital processing unit including an operating system, communication routines, and  
3 a user interface having a query construction routine and a results display routine;  
4 an application server including an operating system, communication routines, and a query  
5 information retrieval content enhancing sub-system having a controller, a library of database  
6 interfaces, a library of data mining routines, a user profiler, a database (DB) DB middleware

7 component and a query/results database, where the sub-system generates related results and/or or  
8 information and generates questions related to the query to enhance information retrieval from a  
9 query constructed at the remote digital processing unit;

10 a database server including an operating system, communication routines, a database and  
11 database services; and

12 a network interconnecting the remote digital processing unit, the application server and the  
13 database server.

1 16.(currently amended) The system of claim 15, wherein the data mining library includes data  
2 mining routines (DMRs) selected from the group consisting of a chi squared DMR, a correlation  
3 DMR, a decision tree DMR, a market basket type DMR, a naive Bayes DMR based on Bayesain  
4 statistics, an association DMR, and a cluster DMR, or mixtures or combinations thereof.

1 17.(currently amended) The system of claim 15, wherein the database is selected from the  
2 group consisting of multidimensional databases, relational database, hierarchical databases and  
3 mixtures and combinations thereof.

1 18.(currently amended) A query information retrieval content enhancing system comprising:  
2 a controller,  
3 a library of database interfaces,  
4 a library of data mining routines,  
5 a user profiler,  
6 a middleware interface and  
7 a query/results database,  
8 where the system generates "as is" results and/or or information, related results and/or or  
9 information and generates questions related to a query to enhance information retrieval from the  
10 query.

11 19.(currently amended) The system of claim 18, wherein the data mining routine (DMR) is  
12 selected from the group consisting of a chi squared DMR, a correlation DMR, a decision tree DMR,  
13 a market basket type DMR, a naive Bayes DMR based on Bayesain statistics, an association DMR,  
14 and a cluster DMR and mixtures and combinations thereof.

1       20.(currently amended)   The system of claim 18, wherein the middleware interface is selected  
2       from the group consisting of multidimensional database middleware interface, relational database  
3       middleware interface, hierarchical database middleware interface and mixtures and combinations  
4       thereof.

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